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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,144	01/17/2002	Khosro Shamsaifar	PARA 49784	1066

7590

05/02/2006

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EXAMINER

GLENN, KIMBERLY E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/051,144

**Applicant(s)**

SHAMSAIFAR ET AL.

**Examiner**

Kimberly E. Glenn

**Art Unit**

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7,12,14,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,7,12,14,17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/17/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regards to claim 1, applicant discloses a microstrip line in line 13. Is applicant referring to the additional microstrip line or the resonators composed of microstrip line?

In line 13, applicant states each capacitively coupled to one of the resonator microstrip lines. With regards to the limitation "each capacitively coupled", is applicant referring to the first and second end?

With regards to claim 2, applicant disclose in claim 1 that the plurality of resonators comprises a microstrip line. Accordingly, this limitation has been incorporated by reference through out the claims dependent from claim 1. Therefore, the resonators of claim 2 cannot be constructed using the alternatives a stripline, coaxial line dielectric resonator or waveguide configurations in view of the microstrip lines resonators incorporated by reference into clam 2.

Claim 3 recites the limitation "the means for coupling non adjacent one of the resonator" in line. There is insufficient antecedent basis for this limitation in the claim.

Also with regards to claim 3, applicant discloses "an additional tunable capacitor and conductor". Are these the same as "the additional microstrip line and additional tunable capacitor" recited in claim 1?

Claim 6 recites the limitation "the tunable dielectric film" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### **Affidavit**

The affidavit under 37 CFR 1.132 filed July 19, 2005 is not persuasive. The statement is merely an unsupported assertion. The arguments regarding the asymmetric response are not commensurate with what is claimed. The sworn statement is drawn to three patents (US Patent No. 6,686,817, US Patent 6597,265 and US Patent No. 5,543,764). Claims 1-4, 12 and 14 are now rejected under 35 USC 102(b) rejection based on reference Giraudeau et al. With regards to claims 6, 7, 17 and 18, the claims are rejected under 35 USC 103 rejection based on Giraudeau et al in view of Zhu et al. Giraudeau et al disclose a filter comprising a plurality of resonators each connected variable capacitor. Zhu et al disclose a tunable filter using a dielectric varactor. One of ordinary skill in the art would have found it obvious to replace the general variable capacitors of Giraudeau et al with the dielectric varactors as taught by Zhu et al. The dielectric varactor provide a lower loss, higher power handling and faster tuning speeds.

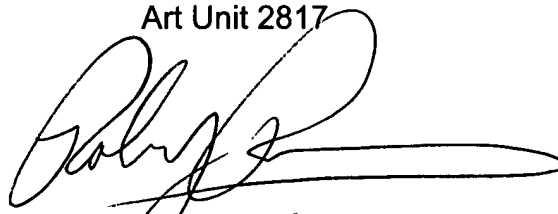
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Kimberly E Glenn  
Examiner  
Art Unit 2817



Robert Pascal  
Supervisory Patent Examiner  
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